

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) An engine starter for rotating a reciprocating engine having a plurality of top dead centers comprising:

a starter motor energized by a battery, said starter motor including an armature, a series-wound first field coil having a predetermined current limiting resistance and a parallel-wound second field coil; and

a short-circuiting means for short-circuiting said first field coil after said starter motor rotates the engine to surmount a first top dead center;

wherein said current limiting resistance limits main current supplied to said armature to an amount to provide a sufficient torque of the starter motor to surmount the first top dead center but to prevent terminal voltage of the battery from dropping to a predetermined minimum level.

2. (Original) The engine starter according to claim 1,

wherein said short-circuiting means short-circuits said first field coil when the main current decreases to a predetermined level.

3. (Original) The engine starter according to claim 1,

wherein said short-circuit means short-circuits said first field coil when a predetermined time has passed after the main current is supplied to the armature.

4. (Original) The engine starter according to claim 1,

wherein:

said first field coil comprises a plurality of magnetic pole cores and a plurality of series-connected first coil-sections respectively mounted on said pole cores; and

said second field coil comprises a plurality of parallel-wound second coil sections connected in parallel with each other and a series-wound second coil section respectively mounted on said pole cores.

5. (Original) The engine starter according to claim 1,
wherein:

said first field coil comprises a plurality of magnetic pole cores and a plurality of first coil-sections respectively mounted on said pole cores to form a parallel circuit of said series-connected first coil sections; and

said second field coil comprises a plurality of parallel-connected second coil sections respectively mounted on said pole cores and respectively connected in series to said parallel circuit.

6. (Original) The engine starter according to claim 4,

wherein said first coil-section comprises a wire having a smaller diameter than said plurality of parallel-connected second coil sections.

7. (Original) The engine starter according to claim 4,

wherein said second field coil is connected in series to said first field coil and in parallel with said armature.

8. (Original) The engine starter according to claim 4,

wherein said second field coil is connected in parallel with said first field coil and said armature.

9. (Original) The engine starter according to claim 1,

wherein said second field coil is connected in series to said first field coil and in parallel with said armature.

10. (Original) The engine starter according to claim 7, further comprising a control

element for controlling current supplied to said parallel-wound coil,

wherein said control element is connected in series to said parallel-wound coil.

11. (Original) The engine starter according to claim 7, further comprising second short-circuiting means for short-circuiting said series-wound second coil section.

12. (Original) The engine starter according to claim 11, wherein said second short-circuiting means comprises a relay and a control circuit for controlling said relay according to one of a plurality of conditions which includes an amount of current supplied to said starter motor, a current supply time, an engine rotation speed and an engine rotation angle.

13. (Original) The engine starter according to claim 12, wherein said control circuit changes control timing of said relay according to a vehicle condition.

14-36. (Canceled)